

Serial No.: 09/771,355
Filed: January 26, 2001

IN THE SPECIFICATION

Please insert the following paragraph at page 1, immediately following the title:

– This application claims priority to U.S. Provisional Application No. 60/178,561 filed
A1 January 26, 2000, which is incorporated herein by reference in its entirety. –

Please replace the paragraph beginning at page 13, line 3, with the following rewritten paragraph:

A2 – The Rad51 antisense molecules hybridize under normal intracellular conditions to the target nucleic acid to inhibit Rad51 expression or translation. In an alternative embodiment an anti-gene may be used. The target nucleic acid is either DNA or RNA. In one embodiment, the antisense molecules bind to regulatory sequences for Rad51. Alternatively, the antisense molecules bind to 5' or 3' untranslated regions directly adjacent to the coding region of the Rad51 gene. Preferably, the antisense molecules bind to the nucleic acid within 1000 nucleotides of the coding region, either upstream from the start or downstream from the stop codon. In a preferred embodiment, the antisense molecules bind within the coding region of the Rad51 gene. More preferably, the Rad51 antisense molecule is selected from the group consisting of AS4, AS5, AS6, AS7, AS8 and AS9 (SEQ ID NOS:4-9) as indicated in Table 1 (SEQ ID NOS:1-9) below. Table 1 includes the recitation of “R51” before the same corresponding antisense, but “AS4” and “R51AS4”, for example, are used interchangeably herein. In one embodiment, the Rad51 antisense molecules are not directed to the structural gene; this embodiment is particularly preferred when the Rad51 antisense molecule is not combined with another antisense molecule. It is understood that any of the antisense molecules can be combined. –

Please replace Table 1 beginning at page 13, line 19, with the following rewritten table:

- Table 1: Antisense Oligonucleotide Sequences

ANTISENSE IN CODING REGION	
R51AS1	5'- (P=S) GGC TTC ACT AAT TCC-3' (SEQ ID NO:1)
R51AS2	5'- (P=S) CGT ATG ACA GAT CTG-3' (SEQ ID NO:2)
R51AS3	5'- (P=S) GCC ACA CTG CTC TAA CCG 3' (SEQ ID NO:3)
ANTISENSE IN 5' UNTRANSLATED REGION	
R51AS4	5' (P=S) GGT CTC TGG CCG CTG CGC GCG G-3' (SEQ ID NO:4)
R51AS5	5' (P=S) GCG GGC GTG GCA CGC GCC CG-3' (SEQ ID NO:5)
ANTISENSE IN 3' UNTRANSLATED REGION	
R51AS6	5' (P=S) CCC AAG TCA TTC CTA AGG CAC C-3' (SEQ ID NO:6)
R51AS7	5' (P=S) GGG AGT ACA GGC GCA AGA CAC C-3' (SEQ ID NO:7)
R51AS8	5' (P=S) CGA TCC ACC TGC CTC GGC CTC CC-3' (SEQ ID NO:8)
R51AS9	5' (P=S) CCT CAG GCT ATA GAG TAG CTG GG-3' (SEQ ID NO:9)

Please replace the paragraph beginning at page 16, line 3, with the following rewritten paragraph:

A4
– Additionally, and not by way of limitation, Rad51 inhibitor delivery may include the use of nuclear localization signal (NLS). This is especially preferred when the Rad51 inhibitor is a peptide. NLSs are generally short, positively charged (basic) domains that serve to direct the entire protein in which they occur to the cell's nucleus. Numerous NLS amino acid sequences have been reported including single basic NLSs, such as the SV40 (monkey virus) large T Antigen (Pro Lys Lys Lys Arg Lys Val (SEQ ID NO:10)) (Kalderon (1984), *et al.*, *Cell* 39:499-509), the human retinoic acid receptor- β nuclear localization signal (ARRRRP (SEQ ID NO:11)), NF κ B p50 (EEVQRKRQKL (SEQ ID NO:12)) (Ghosh *et al.*, *Cell* 62:1019 (1990)), NF κ B p65 (EEKRKRTYE (SEQ ID NO:13)) (Nolan *et al.*, *Cell*